

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number
WO 2005/087566 A1

(51) International Patent Classification⁷: **B60T 8/58**

(21) International Application Number:
PCT/JP2005/005071

(22) International Filing Date: 15 March 2005 (15.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004-073082 15 March 2004 (15.03.2004) JP

(71) Applicant (for all designated States except US): **TOYOTA JIDOSHA KABUSHIKI KAISHA** [JP/JP]; 1, Toyota-cho, Toyota-shi, Aichi 4718571 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SUZUMURA,**

Masato [JP/JP]; C/o Toyota Jidosha Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi 4718571 (JP). **ASANO, Kenji** [JP/JP]; C/o Toyota Jidosha Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi 4718571 (JP).

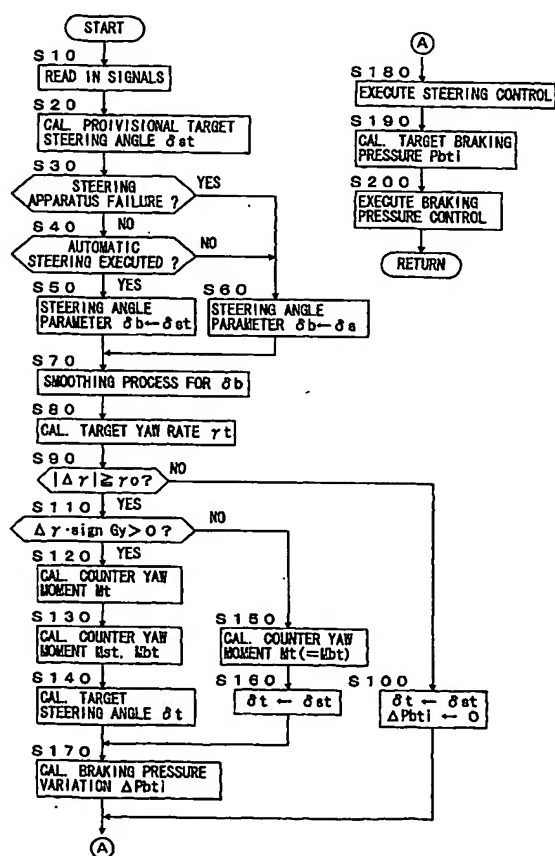
(74) Agent: **AKASHI, Masaki**; 5f, YH Bldg., 6-8, Shinkawa 2-chome, Chuo-ku, Tokyo 1040033 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: **VEHICLE STABILITY CONTROL DEVICE**



(57) Abstract: A novel vehicle stability control device through steering wheels independently of the driver's handling operation is provided, in which a suitable steering angle parameter in determining a target value for a turning state parameter is selected. The control device calculates a provisional target steering angle for wheels based upon an amount of an operation of a driver and a predetermined steering characteristic; a target value for the turning state parameter; and a target steering angle for wheels for reducing a magnitude of a deviation of the actual turning state parameter from its target value when the magnitude of the deviation is at a reference value or above, and thereby controlling a steering angle based upon the target steering angle. During execution of controlling the steering angle based upon the target steering angle, the target value of the turning state parameter is calculated based upon the provisional target steering angle.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.